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Review of “Philosophy of Science and Race”

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Book Review

Philosophy of Science and Race, by Naomi Zack. New York, NY: routledge, 2002. xiv + 134 pp. Bibliography and index.

Making Race Matter Not

I.

It is a frustrating sensation, in reading a philosophical work, to be more or less in complete agreement with the author's conclusions, nay, to find them philosophically, psychologically and morally irresistible, but yet all the same to have the nagging suspicion that the author's arguments for those conclusions are weak—combined with a hunch that there are much better ones lying around for the taking. I suspect this odd feeling will be the response of more than a few readers of Naomi Zack's newest addition to her already large corpus on the subject of race. In this work, Professor Zack's primary aim is to argue that the common sense notion of race has no fundamental basis in any biological science. In other words, 'race' has no real referent, if by 'real' we mean some category or thing used (or usable) in our best scientific explanations. 'Race', according to Zack (in an ontological rendition of this distinction), ought only to be *mentioned* by our best biological science, and never *used* (80).

Zack's book is refreshingly dense with argument and the arguments are interleaved, to a fairly great degree. Because of that, I believe the reader is owed a fairly detailed analysis of her argumentation and it is that that I will endeavor to provide.

The overall way Zack goes about making the case for this null hypothesis is by first examining the philosophical underpinnings of what she takes to be the common sense notion of 'race' (to avoid begging any questions, I will, in all that remains, place in quotation marks any term whose referent is at issue); after that, she examines, in turn, what she takes to be the strongest possible foundations for some real biological taxonomy of 'race' and finds them all wanting; then she shows some of the consequences of abolishing 'race' from both scientific and common sense discourse. The cumulative effect of realizing the unreality of race will be, urges Zack, "that the world will not merely become a more just place in issues of race, but it will no longer be the same world." (115)

Such ambitions and goals are of a nobility as to always and only warrant an attitude of respect and humility; still, if we are indeed to change the world and rid ourselves of the pernicious racialism we have inherited (to say nothing of the racism on which it depends), only the best possible arguments will do and that, I contend, Zack has failed to offer.

II.

In her Introduction, Zack is concerned to place her project within the larger philosophical arena of metaphysical realism and its implications for the philosophy of science. In particular, she takes pains to point out that, although she will vehemently deny the place of ‘race’ at the table of scientifically legitimate categories, she will argue for this denial from within an overarching position of realism. As she puts it, “there is a world that exists independently of thought...[and this world] is the referent of the phrase ‘the real world’” (5). Moreover, exactly what kinds and categories our world contains, she maintains, is largely a matter on which our best science is the final authority (6). From this ‘minimal’ realism, Zack will argue that ‘race’ has no business in our best biological sciences, hence it has no business as a legitimate category of the ‘real’ world. Though philosophers uncomfortable with empirico-philosophical argumentation and science in general will no doubt find this kind of work unsatisfying—especially so if they be of a post-modernist bent, Zack is surely correct in this starting point. Any argument to the illegitimacy of ‘race’ that turns on a premise of the illegitimacy of any real categories at all is destined to be no more than a pestering nuisance to progress—small wonder post-modernists get so little respect outside the humanities.

But before she brings her arguments to bear on the empirical science as she finds it, Zack devotes Chapter One to tracing a bit of the philosophical history of racial essentialism (and a touch of essentialism in general). She starts out by delineating Aristotelian essences as being, in Elliot Sober’s words, constitutive of species membership: That is, the essence of a species is present in all members of the species and is what makes those members members of that species. This, in contrast to Lockean nominal essences (that is, qualities, we pick out as defining a species based on parochial interests), Zack claims to be behind the racialism of the current day, both ‘on the street’ and in illegitimate biological thinking. So in Zack’s mind, common sense racialism is *inter alia*, a commitment to there being real racial essences that, in some sense, constitute the ‘races’ and make people belong to whatever ‘race’ they happen to belong to. In what sense this is the common sense ‘opinion on the street’ is something I will turn to later.

After this general background, she then dilates (a bit too much, in my opinion) on the racial essentialism of both Hume and Kant. While this may be of interest to intellectual historians, hearing that both Hume and Kant were inveterate racialists (and racists) comes as no great shock and frankly does nothing to advance Zack’s larger point—which is most distinctly not historical—that ‘race’ is unreal, here, there, and everywhere.

In any event, as Zack is admirably clear on, the real business takes place in Chapters Two, Three, Four, and Five. There, in *seriatim*, she proceeds with an investigation to determine whether any of the following four notions could be the basis for a biologically sound category of ‘race’: geographical origin, phenotypes, heredity, geneology. What she is looking for, and what she claims the common sense notion of ‘race’ requires, is some “specific racial factor[s]” known to be connected with other human traits distinctive to socially identified racial groups.(26) Because to deny human variation is absurd, yet human variation most definitely does not entail the biological reality of ‘race’. Now one could make the case for the reality of ‘race’ if one could tie socially identified ‘race’ to some other category in good scientific standing in an epistemically sound way. So the real fulcrum of Zack’s claim that no specific racial factors can be connected to anything biologically interesting is going to be her standard for epistemic kosher.

To take the case of geographical origin (Chapter 2) : One might, drawing on the work of population geneticist Luigi Cavalli-Sforza and others, note that after the initial migration of modern homo sapiens out of Africa, there is a remarkable degree of coincidence amongst linguistic, genetic, near-term continental origin, and socially defined ‘race’ based methods of dividing up humanity. Taking matters a bit further, one may, as Robin Andreason does, look to the biological notion of a *clade* (a diachronic family line that has formed a relatively isolated breeding population—typically owing to geography) as a means of biologically grounding the notion of ‘race’. Zack thinks ill of Andreason’s proposal for the following reason: Unless the connection between populations with near term origins on a certain continent and socially defined ‘race’ are assumed in advance, there is no reason to think that Cavalli-Sforza’s data support anything like a ‘racial’ ontology. All that the data show are that there is a correlation between near term geographic origin and certain linguistic and genetic markers. But where does race come into this or add anything to it? Unless one already believes that those with near term origins on the continent of Africa form a distinct race, finding out that these people share certain linguistic or genetic markers is neither here nor there as regards socially defined ‘race’.

This is just the first version of an argumentative strategy that Zack will ply again and again—a charge of epistemological circularity: “Any criterion used to classify members of a group at the same time defines membership in a group.” (100) In other words, you can’t use any connection between near term geographic origin and socially defined ‘race’ unless you can demonstrate on independent grounds the reality of socially defined ‘race’. In still other words, you can’t analyze A-ness as B-ness if your only handle on A-ness is itself B-ness. So, the only way geographic origins could ground ‘race’ would be via some causal connection to traits that are legitimate markers of ‘race’ (say phenotypic ones), but such a causal connection she will dispute (as we shall see below) on still other grounds.

It’s difficult to argue against such a criterion of adequacy on *a priori* grounds. Still, ideological purity has its costs, and in this case, one of them is a potential misreading of Andreason’s argument. If Andreason were trying to reduce the concept of race to the concept of a clade, *solely* via the evidence adduced by Cavalli-Sforza, then she would be guilty as charged by Zack. But it seems clear that Andreason could well have another project in mind, and it’s a project with which Zack (given her stated goal of investigating the common notion of ‘race’) probably ought to have more sympathy. Suppose that Andreason’s goal was merely to show that there is some kind of categorization that is scientifically well founded and does more or less track the ordinary concept of ‘race’. Now of course, this can’t demonstrate the scientific reality of ‘race’ (by Zack’s lights), but it could give us a way of talking about human variation without directly appealing to that notion. This, in turn, would have the salutary effect of removing much of the psychological and political baggage that attends ‘race’. This would seem to be enough for those not locked into a death grip with hardened racial essentialists. But then again, Zack’s astringent epistemology does make one wonder just who she has in mind as her opponent—again, I shall return to this point later.

Be all that as it may, if we do accept Zack’s argument against Andreason, there still is the acknowledged move of tying socially defined ‘race’ to some other independent feature perhaps caused by geographical origin (Chapter 3). What this something is is usually a phenotype. Although Zack deals with two types of phenotypes that could potentially ground ‘race’ (morphological and

blood type), I will focus on morphological phenotypes because that, if anything, is what's probably behind most common usages of 'race'.

The most obvious morphological feature that comes to mind in the analysis of race is skin color, and Zack, in rather short order, dismisses it as a possible scientific grounding of 'race'. In order for skin color to adequately work as a biological grounding for 'race', it would have to be the case that we could divide the natural human continuum into orderly groups (such that every one in group A had either lighter or darker skin color than everyone in some other group B) and this division would have to correspond to our common sense racial divisions. But this cannot be done, according to Zack. It is simply not true that everyone socially identified as 'black' is darker in skin tone than everyone identified as 'white'.

I think there are several problems with this argument. First, simply claiming that skin color divisions are not orderly and hence can't ground 'race' cannot work because all the racialist need respond is that the lack of orderliness is precisely because of 'race' mixing (especially, as is most likely the case, where the envisioned opposition is Caucasion versus any other 'racial' group). What Zack would need to claim would be that one can easily find individuals who violate orderly skin tone divisions where that violation couldn't be explained (excepting, of course, albinism and the like) as the result of a 'multiracial' background. It's not at all clear that these cases are easy to find. Moreover, the die-hard racialist would probably exploit the same argument to explain the phenomenon of skin phenotypes 'shading' into each other. Someone as concerned with question begging as Zack is ought to be exceptionally careful not to commit it against the racialist. Zack might respond that this racialist response would have the effect of limiting 'racial types' to at most two or three, but a) that sort of racialism is not only exactly what's behind much of the pernicious racialism of the day (think of Leonard Jeffries or the Klan), but worse, is exactly the kind of racialism espoused by Kant, as Zack herself notes (21); more importantly (b), this response assumes the only morphological marker for 'race' is skin coloration. But as we shall see immediately below, it's not clear the racialist must accept Zack's emphasis on skin color as the *sina qua non* for racialist thinking.

Developing that point, the second problem with Zack's argument regarding skin color is that, although she mentions them briefly, Zack gives short shrift to other morphological traits, but more disturbingly, no consideration at all to the argument that it is not any one trait in isolation that can serve as a biological marker, but rather groups of traits taken together. If one focuses on morphology this way (keeping in mind not to beg any questions against the racialist), it's not at all clear that orderliness in Zack's sense isn't the rule. How often does one find 'typically northeast Asian' morphology (where this would include hair color and texture, facial morphology, eye color, skin tone, etc.) in 'African' infants where that finding can't be explained by some 'inter-racial' sexual relations? I suspect that Zack's response to this kind of defense of racialism would be that it itself begs the question (after all, any 'race mixing' explanation assumes the reality of 'race'), and I have an equal amount of sympathy with her response; but it is precisely this kind of question begging debate that she herself invites by focusing her argument on ontological grounds. As I will try to demonstrate below, there is, I think, a better strategy for ridding ourselves of racial usage, but it requires a different philosophical mindset—one that sets aside direct arguments over ontology.

Indeed, one thing that would greatly clarify (though not improve) Zack's argument would be an early and concise characterization of just what racialism comes to. As it is, we don't get this until

halfway through the book (63):

- (1) races are made up of individuals sharing the same essence
- (2) each race is sharply discontinuous from all others
- (3) races maintain their identity across generations
- (4) there are limitations to the possible variations within races.

I suspect there is a ‘hard’ way and a ‘soft’ way to read each of these conditions. I suppose a racialist could maintain each of them, and yet allow that there is room for un-tidyness in each one. For instance, there is no reason to think that (1) must be read in an ‘all or nothing’ way. The sharing of a racial essence could be partial, fuzzy, what have you, and still be a discernible case of ‘essence sharing’—to refuse to allow that is just to beg the larger ontological question in the service of the ‘racial’ one. Science can be, and most often is, done on just such an ontologically messy field. Or (4): I’m not sure why the racialist need be committed to that. If the variation limit is thought of as purely *vis-a-vis* variations between ‘races’, then this is just the requirement of orderliness, but it seems as if Zack has a stronger interpretation in mind. But why must the ‘racialist’ accede to this astringent metaphysics, to say nothing of the straightjacketed epistemology it comes with? Now this sort of ‘analysis’ is bound to be messy and will likely run afoul of the kind of epistemic purity that Zack holds ‘race’ to; but again, who is Zack arguing against here? Completely un-scientific surveys of students at a highly ‘diverse’ institution (mine) reveal both a strong commitment to racialism and an equally strong realization that racial identity can be an extremely fuzzy and un-tidy thing, and it’s not clear (from any independent viewpoint) that my students are guilty of any bad ontological/epistemological hygiene—at least in this case. Zack’s constant repetition of the ‘one drop’ type of racialist thinking as some sort of exemplar of racialism strikes me as somewhat outmoded.

In any event, Zack moves on to the question (in Chapter 4) of whether notions of heredity or transmission genetics could work as *analysans* for the notion of ‘race’. Since the advent of Mendelian genetics, one strategem of racialists has been to locate ‘racial essence’ in the genotype and ‘racial’ transmission within the field of heredity. After a brief overview of the current state of the art on genetic transmission in humans, Zack argues that there is no room in the current Mendelian account of gene transmission for specifically racial genes. The reason for this, argues Zack, is that each allele (or gene form) that could possibly be the locus of a ‘racial’ essence is a discrete and independent entity that varies independently in the meiotic division of sex cells. After all, if the supposed genotypic basis for the phenotypically ‘racial’ effects are independently scrambled with each meiotic cell division, then we could hardly have the kind of genotypic unity the racialist would need as the basis for ‘racial’ transmission. As much as one sympathizes with the underlying motives here, it sounds as if Zack may be overstating the case a bit and again, allowing too much of her argument to depend on her own, quite arid, ontologico-epistemological intuitions.

As she acknowledges, the analysis of the human genome is very much a work in progress and it is difficult to know how much faith to place on the current state of understanding. In fact, we are still a long way from knowing, at any genetic level, exactly how skin color is determined, to say nothing of the kind of complex interactions of genes that go into determining other complex phenotypes. Allowing for this retrenchment, Zack takes up the case of the racialist who would maintain a genetic understanding of ‘race’ yet view this genetic essence as playing itself out as the

differential occurrence of various alleles in certain populations (where a population is viewed as a sufficiently breeding group). The problem with this retreat, argues Zack, is that the whole notion of a biological population is “not epistemologically tidy” (69). For instance, cites Zack, the following questions have no generally accepted answers: How many generations of isolation are necessary to form a population? How large must a population be? How much gene flow either into or out of the population can take place before the population is a different population? (69)

Yet here again, issues of philosophical hygiene and question begging lurk in the wings. For starters, it is only on Zack’s criteria of adequacy of what a concept of ‘race’ must be that the lack of generally agreed upon answers to the above questions is problematic. Scientific concepts can be relatively “un-tidy” and nonetheless useful for all that. What Zack would need here is an argument that the un-tidiness in this area is unacceptable for some other reason: but as far as I can see her theoretical machinery runs out there. One possible independent reason for not assimilating ‘race’ to population would be that, as she notes, the number of breeding populations far outstrips the typical racist assumption about the number of races. As she puts it, why aren’t Protestants in Ireland a population or ‘race’ while the inhabitants of Sub-Saharan Africa are? Now an obviously question-begging racist response would somehow turn on the presupposition that those two groups just are ‘racially’ different. But it seems possible that the racist has at least a geographic isolation story to tell in this case: It seems doubtful, in any independent sense of ‘isolation’ that the Protestants of Ireland have been as isolated (from whom?—again, question begging rears its ugly head) as Sub-Saharan Africans. Of course, just who begs the question here is not completely clear. Another possible independent reason for not identifying ‘race’ with population that Zack cites is that the notion of ‘race’ refers to both individuals and groups, whereas the notion of population ostensibly refers only to groups. Presumably, Zack would object to the obvious move to ‘member of population’ on the grounds that population membership is, again, un-tidy—but now we are going in circles.

Finally, Zack considers (Chapter 5) whether genealogical considerations (as distinct from considerations of transmission genetics) could ground the common notion of ‘race’. The locus of a genealogical concern, as Zack does well to remind us, is the individual as a whole and the individual’s relation to ancestors and progeny, as opposed to the genes of the individual, and the relation of the individual’s genes to the genes of the individual’s ancestors and progeny. In this chapter, Zack re-addresses the notion of ‘races’ as clades (with the same basic accusation of circularity) and takes up the attempts to ground ‘race’ in the notion of the family à la Du Bois. Her arguments against the family approach to ‘race’ are manifestly well-taken, although one wonders if the family could really be what anyone has in mind as a scientific ‘grounding’ for the notion of race. What is more interesting, though, are some claims she makes in this chapter about genealogy in general. In addressing the commonplace wonder of ‘if there are no ‘races’ why do children have the same ‘race’ as their parents’?, Zack makes the following, two part, response (74-5). In the first case, she makes the claim that there is no certainty, given Mendelian heredity, that children will inherit those ‘racial’ traits possessed by their parents. In the second place, to the extent that they do, Zack claims that this is simply because their parents resemble each other, ‘racially’. Here we see, in a nutshell, the twin issues of a rather rigid philosophy of science married to assertions that no die-hard racist need accept that characterizes most of Zack’s book.

As regards the first part of the response, I suppose the only answer by one not in the grips of an

ideology would be ‘yes—of course there is no *certainty* that children will resemble ‘racially’ their parents’, but just what standard of certainty does racialism require in this case? For sure, not the strong kind Zack appears to be alluding to, which is clearly out of reach—this is biology, not math. But in some weakened sense, how uncertain is it that children will fail to resemble their parents ‘racially’ where failures cannot be accounted for by dint of ‘race mixing’? Again, in this light, Zack mentions the one-drop rule (which, if in effect, would certainly make Zack’s claim about uncertain ‘race’ inheritance go through), but yet again, why must any racialist adhere to it? As noted before, my un-scientific survey of current undergraduates could not turn up a single adherent to that rule.

As regards the second part of the response, to say that children resemble their parents ‘racially’ because their parents resemble each other, surely cannot be a serious response to the racialist. The resemblance itself will be read racially by the racialist and this will only push the question (as opposed to answering it) one step further on.

In sum, I don’t think any of Zack’s arguments touch the adroit die-hard racialist. And this is not because I think the racialist has a plausible position; rather, it is because I feel Zack is addressing the racialist on entirely the wrong grounds. By way of concluding, I want to offer what I think would be more neutral grounds for addressing the racialist.

III.

The problem with Zack’s approach is not that she focuses on scientific ontology and tries to suss out exactly what we should and should not use in both our ordinary discourse and scientific discussion. Rather, the problem is the means by which Zack does ontology: By listing possible candidate categories ‘race’ may be identified with and then working to knock the identifications down, Zack invites the kind of question begging exercises endemic to this, somewhat rudderless, ontological exercise. I want to suggest that racialism can be addressed, and undermined, by taking a perhaps less profound approach to the problem.

It seems eminently open to the anti-racialist, indeed even the scientifically realist anti-racialist, rather than running through a catalogue of ‘real’ candidate categories that ‘race’ could be identified with (and arguing against each identification), to relocate the focus of one’s efforts from the categorial to the explanatory. That is, the locus of our attention ought to be on ‘race’ at the level of explanatory adequacy, efficacy, simplicity, etc.: Does ‘race’ form any part of any legitimate biological explanation? In particular, must one advert to (use) ‘race’ in our most complete science of the human being? I submit (and of course, Zack would no doubt agree) that the answer is no. Where Zack errs, I contend, is in taking this explanatory failure into ontological/categorial grounds. It is the need to take the further step into why ‘race’ forms no part of any legitimate biological explanation that I think is mistaken. It seems well nigh impossible to settle issues of ontology in the manner Zack attempts, so why not just leave the explicit categorization as the end product of an explanatory strategy rather than the grist for the entire argument? ‘Race’ is not a real category—fine; but the reason is not that it, as a category, does not line up with any acceptable category. No, the answer is that it isn’t a real category because we can accomplish any legitimate end we may have more simply without it. Perhaps the worry is that one cannot maintain one’s realist bona fides while leaving things on such a surface level. After all, just what constitutes a legitimate scientific explanation, if freed from the constraints of ontological rigor, may seem bound to wax extravagant or *ad hoc*. But why must this be so? Surely there can be non-ontological constraints on explanatory

adequacy that comport well with any realist intuitions deserving the name. ‘Race’ forms no part of legitimate biological explanation not because we are smuggling in other agendas, but because everything that has been ‘explained’ using ‘race’ is more efficiently and more simply explained without using it. And that’s all. The exact why’s and wherefore’s of this explanatory fact is not something a scientific realist ought to be concerned with because to venture in that direction is to leave neutral ground behind.

This tactic will no doubt remind readers of some of the great debates that developed out of the early twentieth century movement of empiricism into positivism and pragmatism. And while one can certainly empathize with the sense of let-down occasioned by those practitioners of this move (James, Quine, Goodman, et al), it’s not at all clear that this let-down ought to be taken seriously—at least when it comes to deciding scientific categories. Especially in cases where ontological intuitions are so well-entrenched, as is the case with ‘race’, one seriously doubts that purely ontological/categorical moves such as Zack’s are going to carry the day. Where waters like this run deep, seeking out the shallow end (or Wittgenstein’s ‘rough ground’) and letting the common sense ontology adjust in the due course of time is much more likely to serve the ultimate value goal that is surely behind Zack’s work and should be behind everyone’s thinking on this: ‘Race’ really ought not to matter.

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